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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,475	03/26/2001	Thiruvilmalai Venkatraman Raman	YOR920010001US1	9819

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/817,475	RAMAN ET AL.	
	Examiner	Art Unit	
	Michael N. Opsasnick	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 12-16, 20, 21, 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9,12-17,21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby, III et al. (5,852,803) in view of Walters et al. (6,453,281) in further view of Jong (6173250).

The US patent of Ashby et al. discloses a computer-based system and thus, necessarily includes the apparatus, the method of operation and the article of manufacture of this system. Consequently, rejections for claims 1-11, 12-20, 21-24 and 25 have been combined, as they all address the same subject matter. Where appropriate, all interrelated limitations from these claims have been listed in the same location.

Referring to claims 1, 12, 21, 25, Ashby, III et al. disclose:

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inputting at least a portion of the electronically-readable identifier marked on an item (bar code and bar-code reader (1st device) col.2, ln.1-5 col.5,

inputting from a user a spoken utterance that corresponds to the item (voice information and microphone 2nd device) col.1, ln.63 - col.2, ln.1 and col.5, ln.33-35),

associating the electronically-readable identifier (bar-code label) input from the item with the spoken utterance input from the user on storage device (81, FIG. 11) by use of processor (78, FIG. 11) (See also col.3, ln.36-39., col.5, ln.18-34 and col.9, ln.60-65);

and outputting the spoken utterance when the electronically-readable identifier associated with the spoken utterance is subsequently inputted (speaker, 36, FIG. 11 and col.3, ln.36-52 and col.9, ln.31-47).

Ashby, III et al, do not disclose

“converting the spoken utterance input by the user to text” and

“associating electronically-readable identifier and the corresponding text.

Note: While Ashby et al. suggest the use of voice recordings instead of text data (Col. 9, lines 48-57), Ashby et al.'s do not explicitly teach away from the converting user-spoken utterances to text. Ashby et al. only suggest that using voice recordings instead of synthesized data would improve user's experience. However, from the functional perspective, Ashby et al.'s system would achieve the same goals of delivering audible information to the user if it were to synthesize this information from the text. In addition, as it would have been obvious to one of the ordinary skill in the art, Ashby et al. 's system suffers

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from the inefficiencies associated with a storage and maintenance of a large number of voice recordings.

Walters et al. teach converting user's voice input to text (Col. 9, lines 41-50) for the purpose of recording user's voice records. As it is well-known in the art, text version of a document requires far less storage space than the voice-recorded version of the same document. In addition, it is notoriously known in the art of software engineering that management of text data (database storing, lookups, searches, etc.) is much simpler than the similar management of binary data, such as voice recordings (Col. 1, lines 42-55). Walter et al.'s system thus solves the problem of manipulation and maintenance of large number of voice records - the problems also associated with Ashby et al.'s system, since Ashby's system operates with a large number of voice recordings.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. as taught by Walters et al. to convert voice utterances to text because it would advantageously allow the user to be in command of a large amount of information with greater efficiency (Walters et al, col. 1 , Lines 42-55). In addition, examiner takes the official notice that it is extremely well-known in the art of software engineering to perform searches of the databases using text data, since it is the fastest and most efficient way which is currently available in the art of organizing and searching the databases.

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The combination of Ashby III et al in view of Walters does not explicitly teach using a remote speech-to-text (speech recognition) system.

However, neither Ashby et al. nor Walter et al. explicitly teach against connecting to a network. For example, Walter et al. teaches connecting to a remote database (Col. 28, lines 40-45), while Ashby et al. also teach using a terminal workstation (74, FIG. 11) which would suggest a network connection in the modern days (at least after 1996, while Ashby et al's patent has been filed in 1992, when network connectivity was not as prevalent)

Jong, however, teaches a method, wherein the speech-to-text conversion is performed on a computing device (speech recognition device, fig.2, element #203) remotely located with respect to a computing system (SU system, col.2, ln.55-56) performing the other steps (col.2, ln.65; col.5, ln.13-33, fig.1 shows systems 100 and 110), and archiving the text as needed (fig. 5, subblock 503). System 100 performs speech-to-text conversion and system 110 performs text-to-speech conversion. The two systems are remotely located, and they are connected by a transmitting network).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Ashby, III et al. in view of Walters et al. as taught by Jong to have speech-to-text conversion performed on a computing device remotely located with respect to a computing system performing the other steps, in order to provide an efficient centralized way to transmit speech data and to facilitate speech processing of data in the speech recognition system of Walters et al. because,

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the distributed speech recognition systems allow to offload heavy speech processing to dedicated (remote) computers, thus reducing the computational load on the local machines (Jong, col. 1 lines 30-40).

Referring to claims 2, 13, Ashby, 111 et al. further disclose the method, wherein the electronically-readable identifier marked on the item is a universal product code (col.9, ln.31-34).

Referring to claims 3, 14, Ashby, 111 et al. further disclose the method of reading the universal product code from each item with a barcode reader (col.9, ln.32-36, col. 10, ln. 21-31 and Fig. 1 , element #80).

Referring to claims 4, 15, Ashby, 111 et al. further disclose the method, wherein the associating step comprises storing the spoken utterance corresponding to each item using the universal product code read by the barcode reader for each item as an index (memory, col.9, ln.31-47 and col.11, ln.1-3).

Referring to claims 5, 16, Ashby, 111 et al. further disclose the method, wherein the outputting step comprises: subsequently reading the universal product code from an item with the barcode reader (col.9, ln.31-34); searching stored spoken utterances using the universal product code as an index (col.10, ln.66 - col. 11, ln.3) ; and

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playing back the spoken utterance that is found in the search to the user (col. 11, ln .3-7).

Referring to claim 7, Ashby, III et al. do not disclose the step of converting spoken utterance to text by a speech recognition system.

However, Walters et al. teach using speech recognition system to convert spoken utterance to text. (154, Fig. 4 and Col. 9, lines 25-40)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. as taught by Walters et al. to convert the spoken utterance to text by using a speech recognition system in order simplify the process of storing, maintaining and retrieving records (either synthesized or previously recorded) associated with the electronically-readable identifiers (Col. 1, lines 42-55)

Referring to claims 8-9, 23, Ashby, III et al. do not disclose converting text back to speech when the system determines that electronically-readable identifier input from the item is associated with the corresponding text.

However, Ashby et al. do teach outputting voice recordings when an associated electronic code is entered in the system (col.3, ln.36-52 and col.9, ln.31-47). As it has been explained in the rejection for claim 1, it would have been obvious to one of the ordinary skill in the art to modify Ashby et al. to convert voice utterances to text and associate this text with the corresponding electronic labels for the easier storage and

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improved operational efficiency.

In addition, Walters et al. teach converting text back to speech using text-to-speech system for the playback of stored records (156, FIG. 4 and Col. 10, lines 18-27) As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, 111 et al. as taught by Walters et al. to play back stored records associated with the electronic identifiers using text-to-speech conversion, in order simplify the process of retrieving data records originally stored as text and associated with the electronically-readable identifiers (Col. 1, lines 42-55), particularly because, as it is well-known, text recordings do not require as much storage capacity as binary voice recordings. In addition, outputting audio data allows users to browse/listen to records by audio means only, hence, improving the overall user experience for people incapable or disinclined to read product labels (Ashby et al., Col. 1, lines 42-51)

Referring to claim 24, Ashby, 111 et al. further disclose apparatus configured to be user-portable (fig. 1 1, top element #74).

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Examiner notes the changes in the rejection pertain to giving reasons for motivation to combine the references. Furthermore, examiner notes that the

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common elements of Walters, Jong, and Ashby pertain to the efficient storage and transmission of audio/speech information.

Conclusion

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mr. David Ometz, can be reached at (571)272-7593. The facsimile phone number for this group is (571)272-7629.

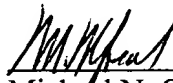
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571)272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno

5/31/05


Michael N. Opsasnick
Examiner
Art Unit 2655